

Title (en)

Controlled-shaped solder reservoirs for increasing the volume of solder bumps, and structures formed thereby

Title (de)

Knotrolliert geformte Lötreservoirs zur Volumenerhöhung von Löthöckern und damit hergestellten Strukturen

Title (fr)

Réservoirs de soudure formés-contrôlés pour augmenter le volume de bosses de soudure et d'structures ainsi formées

Publication

EP 0899787 A2 19990303 (EN)

Application

EP 98305866 A 19980723

Priority

US 5376197 P 19970725

Abstract (en)

A controlled-shaped solder reservoir provides additional solder to a bump in the flow step for increasing the volume of solder forming the solder bump. The controlled shaped reservoirs can be shaped and sized to provide predetermined amounts of solder to the solder bump. Thus, the height of the resulting solder bump can be predetermined. The solder reservoirs can be shaped to take a minimum amount of space, such as by at least partially wrapping around the solder bump. Consequently, the solder bumps may have increased height without adding to the space requirements of the solder bump, or without increasing the fabrication cost. In addition, due to the finite time required for solder flow, a means of sequencing events during soldering is provided. <IMAGE>

IPC 1-7

H01L 23/498; **H01L 23/485**

IPC 8 full level

H01L 21/60 (2006.01); **H01L 23/485** (2006.01); **H05K 3/34** (2006.01); **H05K 1/11** (2006.01)

CPC (source: EP KR)

H01L 23/48 (2013.01 - KR); **H01L 24/05** (2013.01 - EP); **H01L 24/06** (2013.01 - EP); **H01L 24/11** (2013.01 - EP); **H01L 24/14** (2013.01 - EP); **H01L 24/16** (2013.01 - EP); **H05K 3/3436** (2013.01 - EP); **H01L 2224/023** (2013.01 - EP); **H01L 2224/0401** (2013.01 - EP); **H01L 2224/05552** (2013.01 - EP); **H01L 2224/06051** (2013.01 - EP); **H01L 2224/10145** (2013.01 - EP); **H01L 2224/13012** (2013.01 - EP); **H01L 2224/13099** (2013.01 - EP); **H01L 2224/1403** (2013.01 - EP); **H01L 2224/14051** (2013.01 - EP); **H01L 2924/00** (2013.01 - EP); **H01L 2924/01004** (2013.01 - EP); **H01L 2924/01005** (2013.01 - EP); **H01L 2924/01006** (2013.01 - EP); **H01L 2924/01013** (2013.01 - EP); **H01L 2924/01014** (2013.01 - EP); **H01L 2924/01015** (2013.01 - EP); **H01L 2924/01022** (2013.01 - EP); **H01L 2924/01024** (2013.01 - EP); **H01L 2924/01029** (2013.01 - EP); **H01L 2924/01033** (2013.01 - EP); **H01L 2924/01049** (2013.01 - EP); **H01L 2924/0105** (2013.01 - EP); **H01L 2924/01075** (2013.01 - EP); **H01L 2924/01078** (2013.01 - EP); **H01L 2924/01079** (2013.01 - EP); **H01L 2924/01082** (2013.01 - EP); **H01L 2924/01322** (2013.01 - EP); **H01L 2924/01327** (2013.01 - EP); **H01L 2924/014** (2013.01 - EP); **H01L 2924/05042** (2013.01 - EP); **H01L 2924/14** (2013.01 - EP); **H01L 2924/19041** (2013.01 - EP); **H01L 2924/19042** (2013.01 - EP); **H01L 2924/19043** (2013.01 - EP); **H05K 1/111** (2013.01 - EP); **H05K 2201/09381** (2013.01 - EP); **H05K 2201/094** (2013.01 - EP); **H05K 2201/10674** (2013.01 - EP); **H05K 2201/10734** (2013.01 - EP); **H05K 2203/042** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

C-Set (source: EP)

1. **H01L 2224/05552 + H01L 2924/00012**
2. **H01L 2224/13012 + H01L 2924/00012**
3. **H01L 2924/00 + H01L 24/06**
4. **H01L 2224/023 + H01L 2924/0001**

Citation (examination)

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Cited by

FR2924302A1; US8227332B2; WO03017366A1; WO03039218A1; EP1988573A2

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